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ABSTRACT

Most standardized achievement tests do not provide much information that can be used in improving an educational program. Teachers and other program developers need to know what kinds of program objectives are being learned and by what kinds of students and what kinds are not being learned and by whom. Information of this sort furnishes a basis for careful review of the program and suggsts steps that can be taken to improve it. Typical achievement test scores do not provide dependable data of this type. State and national assessment programs, although not planned to appraise a local educational program, make the following contributions to teachers and other local curriculum developers: (1) identification and clarification of educational objectives: (2) report of results in terms of the proportions of students of different backgrounds who have attained or failed to attain objectives: (3) representation of changes in achievement over time: (4) intensification of public understanding and encouragement for the use of local assessment procedures and reports: (5) demonstration of the value of matrix sampling: and (6) provision of independent data regarding progress and problems of schools and, in this way, serve as an important part of accountability. (Author/RL)

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ROLE OF ASSESSMENT INFORMATION IN IMPROVING EDUCATIONAL PROGRAMS

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Most standardized achievement tests do not provide much information that can be used in improving an educational program. Teachers and other program developers need to know what kinds of program objectives are being learned and by what kinds of students and what kinds are not being learned and by whom. Information of this sort furnishes a basis for careful review of the program and suggests steps that can be taken to improve it. Typical achievement test scores do not provide dependable data of this type. They indicate which students have made higher scores and which lower and the mean scores can be computed for a given class or school, but they do not show what kinds of things have been learned and what have not. Assessment data furnish this useful information.

Tests for Sorting and Tests for Assessment

Typical achievement tests were developed when education was rationed and there was a great demand for objective methods of sorting and selecting students. Since the end of World War II, this situation has sharply shifted. Modern industrial societies find it necessary to educate all or

almost all young people, and the demand for means of sorting children has diminished while the requests are gradually growing for means of guiding the education of individuals and groups, and of evaluating and improving programs of instruction. For these purposes, most currently available achievement tests are inadequate.

Many educators do not understand why a test, carefully designed to sort students, that is, to place them on a continuum, cannot also serve as a dependable means of appraising what students have learned. The reason lies in the necessity to have a relatively small sample of test items to represent a large universe of questions and other exercises appropriate for the student performance to be appraised. A standardized test usually includes a total set of items that can be answered by the students in an hour or so. The number of possible questions and exercises is so large that those selected for the test are a small fraction of the possibilities. Hence, to obtain a sample that is representative and adequate requires quite precise sampling procedures focused on the particular purpose of the appraisal. When the purpose is to identify the student's position on a continuum, the sample procedure concentrates on items that differentiate among students, largely eliminating items that may be important in terms of the objectives of the educational program. On the other hand, if the test is designed to

identify what students have learned and what they are not learning, the sample should be selected so as to be representative of what students are expected to learn. State and national assessment programs are designed for this purpose.

Assessment programs identify Important Educational Objectives

Although state and national assessment programs are not planned to appraise a local educational program, they do have roles to play in furnishing helpful suggestions to teachers and other local curriculum developers. One contribution is in identifying and clarifying possible educational objectives. These objectives have been derived through processes more elaborate than those used in selecting objectives for a local program. For example, those that guide the National Assessment of Educational Progress have been proposed by scholars and specialists in the subject area. They have been reviewed and sometimes modified by panels of teachers to be sure that they represent what schools are trying to teach, and they have also been reviewed by panels of parents and other concerned citizens to be sure that they are what school patrons believe to be important for their children to learn. Such a list of educational objectives is useful in local program development.

Of course, the developers of a local program may select objectives that differ in some respects from those of state and national assessments, but when they do, they need to be sure that their selection is justified on sounder ground than personal preference. Hence, the state and national lists of objectives are useful for local programs both in providing objectives that have been developed by a comprehensive process and in furnishing a basis for identifying local needs that require deviation from state and national objectives.

Assessment Programs Indicate Kinds of Useful Data

Because state and national assessment programs report results in terms of kinds of objectives and in the proportions of students of different backgrounds who have attained or failed to attain these objectives, local teachers and other program developers are recognizing that assessment-type data are helpful in program review and improvement. Teachers are protesting that educational tests have not helped them in their work. As they become familiar with assessment data, they are perceiving that information of this type can focus attention on the parts of the program that are effective and with what kinds of students and the parts that are ineffective for certain kinds of students. For example, a recent national assessment in mathematics reports that ninety percent or more of 17 year-olds can

compute accurately with whole numbers but only about forty-five percent can utilize these computations properly in solving the common quantitative problems most people encounter. Such data have clear implications for modifying the arithmetic program by giving more attention to and practice on selecting and using algorithms to solve quantitative problems. To cite another example from the reports of the National Assessment, the fact that most 9 year-old children who come from homes of parents who have at least a high school education can read simple stories and newspaper items while less than half the children from homes of parents who have had less than an 8th grade education could do so indicates needs of particular groups for improvement in reading programs.

Assessment Programs Help Build Credibility For Useful Data

Another role of state and national assessment programs is to help, through the reports, to build public understanding and encouragement for the use of local assessment procedures and reports. At present, many people are suspicious when a local school changes its testing program because they think that the school is seeking to evade accountability by using new tests that may not show decline in the educational achievement of its students. As the public becomes accustomed to assessment reports

and sees the way in which the reports show changes in achievement over time, differences in the learning of different kinds of students, and differences in the extent to which different educational objectives are being attained, local assessment procedures and reports are likely not only to be accepted but to be encouraged. This is important if local program improvement is to be guided by dependable information about results.

Assessment Programs Demonstrate Value of Matrix Sampling

Another significant role that assessment programs can serve is in demonstrating the value of matrix sampling in the appraisal of program outcomes. Almost all educational tests sample very inadequately the universe of objectives (the content and the ways in which students are expected to use or react to the content. When the student time available to testing is limited to an hour or two, and when the total test is to be taken by every student, the constraint on sampling is far too great to sample reliably each kind of behavior the student is being helped to learn and with each division of content. Matrix sampling permits a much more representative and adequate selection of exercises since every student does not take all exercises, but all the exercises are distributed among the students randomly. As teachers and other program

developers become conscious of the greater amount of significant information provided by matrix sampling in state and national assessment program, this procedure will become more widespread.

Assessment Programs Increase Credibility of Educational Reports

Schools and colleges have suffered from lack of communication about their problems and difficulties in achieving the objectives which they and the public have expected. Annual reports, college catalogs, and other public information have concentrated on laudable goals, superior teachers, excellent facilities, the fine qualities of the student body and some of the positive achievements. Nothing is commonly reported about problems and difficulties. This kind of reporting makes skeptical people doubtful of the truth of the information provided by the schools and colleges themselves, and leads them to believe in the criticisms and attacks on these educational institutions. When, under pressure, test scores or other data indicating problems are made public, there is a cry for accountability and a pervasive sense of distrust.

The reports of state and national assessments which furnish independent data regarding progress and problems of schools help to give the public a more realistic and

accurate picture of the difficult tasks of many educational institutions. These reports also help to create a more receptive audience for local administrators, teachers and other program developers to talk frankly about the problems they are encountering in the local school and the need for trialevaluation, modification, and further trials and modifications to improve local programs. They can also explain more easily the usefulness of local assessments in pin-pointing parts of the program that are working well, and with what kinds of students and parts that are not working as intended with certain kinds of students. This frank reporting of appraisals, modifications and reappraisals can do much to reestablish public trust in the operation of the schools and serves in this way as an important part of accountability.

In Summary

It should be apparent from the preceding discussion that state and national assessment programs cannot take the place of local assessments. The American educational system is so large and so diverse in particular situations that there appear to be no universal problems and certainly, no universal solutions. The backgrounds of students, their purposes, the aspirations of the parents, the variety of learning conditions at home and in the community, the many different talents of teachers and the variety of

community settings and resources create both problems and opportunities. Neither state nor national assessment data can be assumed to fit any particular school, but the procedures, the forms and the experiences of state and national programs can stimulate and guide local assessments which are so necessary for improving programs.